

AN ASSESSMENT OF SURGICAL ONCOLOGY
PATIENT EDUCATION

by

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of

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DEDICATION

This paper is dedicated to my family. Thank you all for your love, patience, encouragement, and inspiration. Thank you for picking up what I was dropping at home to focus on this endeavor Because of you that I was able to successfully complete this project.

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TABLE OF CONTENTS

1. INTRODUCTION	1
Background	1
Significance to Nursing.....	2
Local Problem/Needs Assessment.....	2
Problem Statement	5
Project Purpose	6
2. REVIEW OF LITERATURE	7
Review of Literature	7
Patient Education	7
Cancer Patient Education.....	8
Best Practices Approaches.....	9
Theoretical Underpinning.....	10
3. METHODS	12
Ethical Issues	12
Sample and Setting	12
Interview Guide	13
4. OUTCOMES/RESULTS	15
Outcomes/Results	15
Who – Patient Educators.....	15
What – Patient Education Content and Validity	16
When – Timing of Patient Education.....	18
Where – Patient Education Setting	20
How – Patient Education Documentation and Follow Up.....	21
Case Study Responses.....	22
Themes.....	23
Electronic Health Record.....	23
System Connectedness.....	24
Early Intervention	25
5. DISCUSSION	26
Discussion.....	26
Strengths	27
Comparing Outcomes to Literature	29

TABLE OF CONTENTS CONTINUED

Differences Between Observed and Expected Project Outcomes	30
Review of Financial Cost.....	31
Suggestions to Help Improve Future Projects	31
Limitations	31
Suggestions for Future Studies or Performance Improvement Projects	32
6. CONCLUSION.....	35
Conclusion	35
REFERENCES CITED.....	37
APPENDICES	41
APPENDIX A: Subject Consent Form for Participation in Human Research	42
APPENDIX B: Study Interview Guide.....	44
APPENDIX C: Institutional Review Board.....	47

LIST OF FIGURES

Figure	Page
1. Donabedian's Model for Healthcare Quality	9
2. Subject Discipline and Years in Profession	14

ABSTRACT

Cancer patients are faced with tremendous amounts of information during a very vulnerable time, challenging the medical community to provide patients and families with up to date, relevant, evidence-based information to make informed decisions that promote positive health outcomes. Lack of standardized pre-operative patient educational efforts for adult surgical oncology patients has the potential to negatively impact system efficiency, patient outcomes, patient satisfaction and trust in their healthcare team. When patients possess understanding of their care process, their role in recovery, and trust in the healthcare team increases (Reiter, 2014).

The aim of the project was to assess the current structure and process of surgical oncology patient education within one integrated health system in the northwest United States using the Donabedian framework for healthcare quality (Donabedian, 1980). A non-experimental descriptive exploratory survey was used for data collection.

Project findings include identification of systematic structure and processes of surgical oncology education due in part to the complexity of the health system structure and lack of standardization across care settings. Documentation of education provided is varied by location and provider type with an absence of formal pre-operative or post-operative education plan within the system. Information collected will be used for future quality improvement projects and interventions to improve surgical oncology patient education across the continuum of the integrated health system.

CHAPTER ONE – INTRODUCTION

Background

In 2017, there were an estimated 1,688,780 new cancer cases diagnosed in the United States of which 6,140 were patients living in Montana (American Cancer Society, 2018). Cancer is a source of stress and emotional disturbance related to the nature of disease, treatments, and consequences. Patients with a cancer diagnosis and their families face tremendous amounts of information during a very vulnerable time. This exchange of information between patients, their families, and their medical teams is essential in making informed decisions and dealing with challenges (McPherson, Higginson, & Hearn, 2001). The medical community is challenged to provide patients and families with up to date, relevant, and evidence-based information to make informed decisions that promote positive health outcomes, while simultaneously increasing healthcare efficiencies and decreasing costs. Lack of standardized pre-operative patient educational efforts for adult surgical oncology patients have the potential to negatively impact system efficiency, patient outcomes, and patient satisfaction and may result in increased health care costs through avoidable readmissions. When patients possess a good understanding of specific processes, their role in the recovery and the trust in the process and their providers increases (Reiter, 2014). Initially, based on perceptions of nursing staff related to surgical oncology patient education, it was thought that changes to the process of surgical oncology patient education within the system were needed. After a brief analysis

of the process, it was determined that much more information would be needed to make successful changes, leading to the development of this project.

Significance to Nursing

Patient education is a professional practice standard of the registered nurse formally recognized by the American Nurses Association as standard 5B Health Teaching and Health Promotion (Nursing; Scope and standards, 2015). Though patient education has been part of healthcare for centuries, growth and significance of this topic are steadily increasing as the result of mandates in disease management, consumer demand for involvement in medical decision making, and the growth in complexity of patient-centered treatment plans. Through delivery of effective patient education, nurses have the ability to substantially impact healthcare systems, including organizational strategic goals for financial success, patient satisfaction, and quality health outcomes. Effective patient education increases a patient's ability to comply with the health care plan and in turn leads to greater patient satisfaction (Reiter, 2014).

Local Problem/Needs Assessment

One health system, in the northwest United States, established in 1910, serves a local population of approximately 96,000 along with residents from varying locations across the region and state. In 2003, a cancer center was established on the campus and began to treat patients needing radiation therapy. In 2008, surgical oncologists were brought onboard along with the beginning of a comprehensive breast cancer treatment

program. In 2012, the cancer program earned accreditation by the American College of Surgeons Commission on Cancer which remains in place to date. (Dolak, 2012). The health system now includes three hospitals and more than 40 outpatient clinics. The medical staff associated with the cancer program includes seven medical oncologists, one medical oncology nurse practitioner, five surgical oncologists, two surgical oncology nurse practitioners, three radiation oncologists, two radiation oncology nurse practitioners, and a variety of ancillary staff across multiple outpatient clinics. This health system has grown rapidly since 2012 and has substantially expanded clinical services and added numerous outpatient clinics and specialty providers. Surgical oncology within the health system is a specialty that focuses on the surgical treatment of a variety of tumors. The most common surgical oncology procedures within in health system include breast cancer, colorectal cancer, melanoma, and endocrine tumors.

Surgical intervention is an important part of care for many patients with cancer. In some cases, it may be a definitive treatment and other times it is used to stage disease, treat or relieve symptoms, and prevent cancer from spreading or reoccurring. Providers within the health system of focus carefully evaluate who may benefit from surgery and are trained in modern surgical techniques such as minimally invasive laparoscopic and robotic techniques to lessen the impact of surgery on patients. Along with the medical oncology team and other specialists, providers collaborate to decide if surgical treatment is an appropriate plan of care.

Nurses throughout the surgical oncology care continuum provide patient education and began sharing observations related to perceived lack of patient knowledge

and understanding of surgical oncology procedures and factors negatively impacting the quality of patient education. Depending on the clinical location, nurses believed that patients were not getting adequate education regarding their surgical oncology procedures pre-operatively or post-operatively. No formal standardization of surgical oncology peri-operative education seemed to exist. Where patients entered the continuum of surgical oncology care seemed to affect the process for receiving patient education and the timing patient education varied. The post-operative and inpatient periods were often used despite awareness during these periods, patients can be overwhelmed, in pain, and under the influence of central nervous system altering medications, which may impact an ability to retain important health information. Additionally, the existence of multiple electronic medical records products across the system creates challenges for standardization and effective communication. This challenge is further reflected in divergent staff perceptions of patient education.

The perception of inpatient nursing staff is that patients are admitted for oncological surgery with a poor understanding of what is going to happen to them during and after their hospitalization. Outpatient nurses voiced anecdotal concern that patients are not adequately prepared for discharge; therefore, they must call multiple times post discharge or be seen in the office for issues that may have been prevented with proper education. These observations and perceptions were shared multiple times and lead to the decision to further investigate the current state of surgical oncology patient education within the integrated healthcare system.

Pre-operative patient information is shown to have a positive correlation with desired health outcomes including faster post-operative recovery, reduction in post-operative complications, and a reduction in patient anxiety (Walker, 2007). Patients should ideally receive information related to their treatment plan, surgery, hospitalization, and discharge before they are admitted to the hospital. Information presented before admission can be reinforced during inpatient stay, and new information received during a time of acute stress could be lessened.

Problem Statement

Surgical oncology patients receive education that is fragmented and asystematic due to the complexity of organizational structures present in one health system in northwest Montana. Pre-operative education provided to surgical oncology patients is variant in setting, delivery, and content. Patients receive education in the surgical oncology office and at the bedside in an inpatient setting by multiple care providers that appears to be inconsistent in delivery, format, and timing. This variation may lead to confusion and mistrust of clinical staff by patients and their support systems. Patients may receive large amounts of information during the peri-operative period, from a variety of sources, but this information is not always retained by the patient due to physical and psychological stressors leading to low retention, confusion, and poor health outcomes.

Project Purpose

The purpose of this clinical improvement project is to assess and analyze current organizational structures and processes of surgical oncology patient education within the integrated health system.

CHAPTER TWO – REVIEW OF LITERATURE

Review of Literature

The literature surrounding patient education of surgical oncology patients was reviewed. A synthesis and summary of the literature are outlined into themes of process and structure to inform and support this project and was further broken down into patient education, cancer patient education, and best practices. Relevant full-text articles from 1986-2015 were found through searches in research databases such as Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, and PubMed along with nursing journals, textbooks, and common internet sites such as the American Cancer Society. Key terms used during literature search include cancer patient education, patient education process, peri-operative patient education, surgical patient education, and cancer care coordination.

Patient Education

Patient education has been recognized as an essential part of nursing duties since the conception of modern nursing by Florence Nightingale. (Nightingale, 1946). It is recognized by the American Nurses Association as a standard of practice. Standard 5B Health Teaching and Health Promotion states “the registered nurse employs strategies to promote health and a safe environment” (ANA Scope and Standards, 2015, p. 148). Proper patient education has been shown to improve psychosocial and self-management skills and disease-specific quality of life, while reducing length of hospital stay,

complications and readmission rates (Faury, Koleck, Foucaud, M'Bailara, & Quintard, 2017). Patients who have a strong understanding of a procedure are more successful in recovery and have a higher level of trust in their healthcare team (Reiter, 2014).

Cancer Patient Education

A diagnosis of cancer may result in patients being fearful of pain, dependency on others, side effects of treatment, an uncertain future, and even death (DeSnoo & Faithfull, 2006). Education to patients facing an oncological procedure should be provided regarding their expected course of treatment in the immediately post-operatively as well as anticipated ongoing treatment. Benefits of patient education include an increased sense of self-control, realistic expectations of recovery, reduced anxiety, greater independence and self-care, and improved compliance with prescribed orders (Spalding, Poland, & Gregory, 2013). The literature is clear that providing appropriate education to patients receiving cancer treatment reduces anxiety surrounding treatment, improves compliance, and increases patient satisfaction (Harris, 1998). Despite the literature supporting comprehensive patient education, cancer patients often report that they receive inadequate information about their treatments. This may be related to patient recall of medical consultation, especially in patients who are elderly or who are experiencing anxiety, with estimates showing patients forget 40-80% of information given. (Kessels, 2003).

Best Practices Approaches

A meta-analysis of 116 studies on information provided to cancer patients revealed that written handouts increase knowledge when compared to verbal education alone (Devine & Westlake, 1995). Peri-operative patient education opens opportunities to ask questions regarding rationale for planned treatments and the means to engage in such treatments with information necessary to enable educated decision making, and the ability to become active participants in care. This participation and engagement improve patient satisfaction and trust in their healthcare team (Spalding, Poland, & Gregory, 2013). Satisfaction and engagement are important metrics for healthcare organizations to consider in an environment where emphasis on patient satisfaction has become the center of patient care (Hamdan, 2017).

Little evidence exists in the literature related specifically to best practice for surgical oncology patient education, but best practices for educating individuals undergoing general surgery involves common concepts including consistency of information, involvement of the patient's family members or support group, and clear explanations of what to expect and how to navigate post-operative pain management (Reiter, 2014). Evidence related to general oncology patient education shows that patients who are accompanied to medical appointments by a caregiver, family member, or significant other are likely to benefit from the recall of additional information by their companion (Jansen, Van Weert, Wijngaards-de Meij, Van Dulman, Heeren, & Bensign, 2009).

Theoretical Underpinning

The framework for this project was based on Donabedian's model for healthcare quality. This model features the concepts of structure, process, and outcomes as interdependent facets of healthcare quality. The Donabedian model of structure, process, and outcome is a construct whereby each component is influenced by the previous, making the components interdependent (Donabedian, 1980). As such, good outcomes are dependent on good processes and good processes are dependent on good structure. The Donabedian model provides an evaluation framework that supports systematic inquiry into health services. This model guided the assessment of current structure and process of surgical oncology patient education delivery. Without changes in structure or process of the current system improvement in outcomes would not be possible.



Figure 1: Donabedian's Model for Healthcare Quality

The above model of Donabedian's theory outlines the building blocks of healthcare quality as structure, process, and outcomes. The structure of the health system assessed in the project includes the physical locations where surgical oncology patient education takes place, the providers of patient education, staffing ratios, electronic health systems, and patient demographics. The process of surgical oncology education includes

the actual delivery of education, time constraints; media formats, and follow up plans.

Outcomes can include how quickly patients are discharged, hospital readmission and patient participation in plan of care. Outcomes are outside the scope of this professional project.

CHAPTER THREE – METHODS

Ethical Issues

Data for the project was collected using a student-designed non-experimental descriptive exploratory interview guide to identify the structure and process of surgical oncology patient education within the health system of focus. Key stakeholders in surgical oncology patient education within the health system were identified, informed, and provided consent to be interviewed using a consent form and interview tool approved by the clinical agency and the university Institutional Review Boards (IRB).

The university IRB granted an exemption to the study due to identification of minimal risk to subjects (Appendix A). The agency IRB chose an expedited review of the study because subjects were employees of the organization and to avoid a perceived risk to subjects related to employment. Edits to the consent were advised by the agency IRB chair and legal counsel and made accordingly. (Appendix A). Data will be confidentially stored in a locked cabinet for three years and then destroyed.

Sample and Setting

A convenience sample of fifteen key interdisciplinary stakeholders was identified and included surgical oncology physicians, nurse practitioners, inpatient unit nurses and charge nurses on both day and night shift, outpatient nurses, oncology navigators, oncology social workers, and oncology dietitians. Stakeholders were identified for their known professional relationships to surgical oncology patients within the health system.

Initially, twenty stakeholders were asked to participate in the survey and all agreed. Five of the stakeholders identified were not able to be interviewed due to a variety of scheduling issues during the project data collection period. Stakeholders who were interviewed signed an IRB approved informed consent (Appendix A) that ensured their information would be protected, kept confidential, and would not negatively affect their employment. No participants declined to participate after reading the project information and consent. Participants were interviewed in the setting of their choice on the agency campus which included the graduate student's office, participant's office, outdoor courtyard, and coffee shop.

The goal of data collection was to assess how the current structure and process of the health system affected surgical oncology patient education. The rationale for this data collection was based on Donabedian's model of healthcare quality which provides an evaluation framework that supports systematic inquiry of health services.

Interview Guide

Once the purpose of this project was established, the first step of the project was to determine what questions would need to be asked to assess the structure and process of surgical oncology patient education. A non-experimental descriptive exploratory interview guide was designed and used for this needs assessment project. Several variations of questions were considered, and with input from the professional project committee, the final version of the interview tool was finalized in November of 2017 (Appendix C). The project interview guide (Appendix B) was broken down in to five

sections; who, what, when, where and how to facilitate the assessment of the structure and process of surgical oncology patient education. The project was outlined and a protocol between December and January 2018 and sent to the agency and university IRBs for approval in February 2018. Interviews of key stakeholders were scheduled. Although the original timeline of interviews was two weeks, due to many scheduling issues the timeline of interviews was expanded and interviews were completed between March and June 2018. Data analysis began as soon as the interviews began with initial findings compiled in April of 2018 with final data analysis completed in July 2018. After interviews were complete and demographic data was extracted, transcripts were analyzed, responses were categorized, responses were broken down into categories based on survey tool, and additional content themes were drawn.

CHAPTER FOUR – OUTCOMES/RESULTS

Outcomes/Results

The intended outcome of this professional project was to assess the current structure and process of surgical oncology patient education across the health system and determine its potential to meet the needs of patients and care providers. The guided interviews unexpectedly led to professional relationship building with key members of the surgical oncology team. Many subjects were very open to the idea of process improvement and shared excitement in potential improvements related to this project.

Data from the project interview guide (Appendix B) was broken down into five sections; who, what, when, where and how was analyzed within each of the five sections of the interview tool.

Who – Patient Educators

Subjects for interviews included key stakeholders (care providers) who provided surgical oncology patient education within the system including physicians, nurse practitioners, oncology navigators, inpatient and outpatient nurses, oncology social workers, case managers, and oncology dietitians. All subjects were professionally licensed within their discipline. Specific training to their role varied from residency training to on the job training. Most subjects, when asked of their education preparation, responded that they received on the job training, some with a preceptor, or of their one of a kind positions within the health system. One subject stated, “I have just had to figure it

out as I went along. Surgical oncology was new [to the system], and our team has come a tremendous way in our learning.” Eleven subjects interviewed report to have provided education to other professionals in a variety of formats including speaking at national conference presentations, research, published literature, precepting, providing competency-based classes for the staff within the system and teaching in schools of medicine or nursing. Figure 2 below illustrates stakeholder years of experience by discipline.

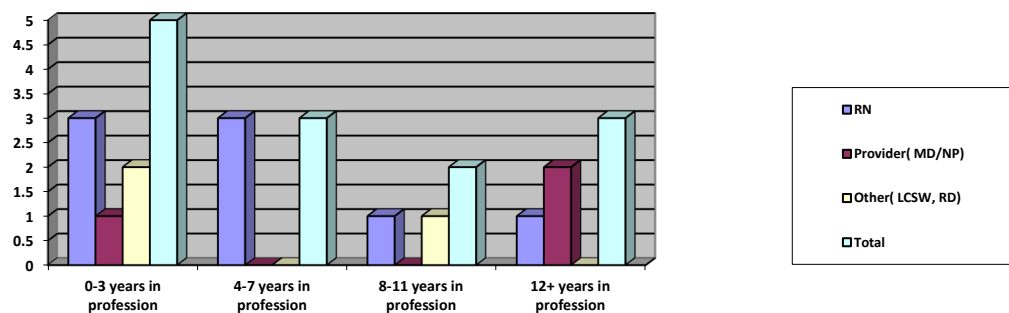


Figure 2. Subject Discipline and Years in Profession

What – Patient Education Content and Validity

Providers, inpatient and outpatient nurses, and oncology navigators all reported providing both pre-operative and post-operative education. What type of education provided during each interaction was dependent upon where the care provider and the patient met along the health care journey and the patient’s-specific needs. All inpatient nurses interviewed reported at times they were unable to provide pre-operative education

due to a variety of situations, which was also true for other ancillary staff such as dietitians, social workers, and case managers. Four subjects specifically reported they wished they were able to meet with patients earlier in their surgical oncology journey. Types of surgical oncology patient education provided varied by discipline and included surgical site care, drain care, tube feeding education, other nutrition and diet education, activity, emotional support, and community resources for navigating cancer diagnosis and care. Five subjects mentioned that earlier introduction to community resources including home health services, and financial and emotional support services would benefit patients. Due to the size and nature of the health system, all subjects interacted with a variety of surgical oncology patients regardless of specialization. One exception to this was the oncology navigators who use loose guidelines to distribute patient assignments based on cancer location and type.

All subjects provided verbal education and some sort of written education to patients. No subjects reported using specific electronic education, but both nurses and navigators reported they use a list of websites related to specific diagnoses, procedures, or resources, dependent on patient needs, e.g., American Cancer Society, MD Anderson Cancer Center, John's Hopkins, National Cancer Institute, Mayo Clinic, pancraticcanceraction.org, and the Cleveland Clinic. Additional education recommended to patients can include device or brand specific and videos related to ostomy care. The source of educational material was also inconsistent among care providers and locations. Answers to the question *Where do you get patient education material?* included "I use material I've adapted from previous jobs," "I have a list of trusted websites I use for

patient education material,” “I primarily use *Exit Care*,” “I have developed material throughout my career,” and “I use whatever is in the drawer.” Validation of material provided also varied. Responses to the question; *How do you validate the education material you use?* included “I have adapted it, so I know it’s valid.” “I use trusted sites such as John Hopkin’s and Mayo.” “I trust that [the system] has chosen a valid tool to provide education.” “The American Cancer Society and Cancer Care are well known sites,” and “I don’t validate material.”

When – Timing of Patient Education

Patient education is provided by care providers throughout the continuum of care. All patients get some sort of education pre-operatively, post-operatively, or during follow up. Providers and navigators appear to have the most interactions with patients throughout the continuum of care. Not all patients have an oncology navigator, but for those that do, the navigator often functions as a liaison between the patient and other members of the care team to provide information and education. Outpatient nurses deliver education in the surgical oncology office during pre- and post-operative visits and often via numerous phone interactions. Inpatient nurses deliver pre- and post-operative education only during hospitalization. The amount of education delivered by inpatient nurses is dependent on patients’ length of stay and may vary from once to multiple times during the course of several days, weeks, or even longer. If patients are readmitted to the inpatient setting, nurses may have additional opportunities to educate or re-educate. Case managers also only provide education during hospitalization and specifically related to

discharge planning. Dietitians and social workers provide education throughout continuum of care dependent on when they are consulted. Dietitians report that education could be improved by more frequent pre-operative consults to provide education to patients on how to enhance nutrition pre-operatively and hopefully decrease poor post-operative nutrition outcomes.

The amount of time spent providing patient education is also quite variable among care providers and dependent on the complexity of patient treatment and needs. None of the subjects were able to give a set amount of time per patient, procedure, or visit. One navigator reported having spent “upwards of one hundred hours” providing education and information to some patients and their families over the course of a “year or more,” while others only “require a few hours.” The perception of amount of time providing education during a pre-operative visit, and inpatient education sessions varied widely among subjects. Some responses included “I spend at least 15-20 minutes each day, providing education to each patient,” “pre-op visits last one hour,” “patients get about 15 minutes of education, pre-op,” and “it takes at least 30 solid minutes at time of discharge to summarize what the patient has been taught throughout their stay and answer questions; sometimes more than that.” Variation in time providing education was related to the individual providing education, context, teaching method, and individual patient learning needs. One respondent shared that education was intended to be kept short because “too much information scares patients.” and “patients who have recently received a diagnosis of cancer are not emotionally prepared to deal with hearing about potentially scary complications.” Another respondent stated that psychosocial aspects of care, health

literacy, and complexity of procedure were reported to be the biggest determinant of time requirements by one participant.

To the question “*Do you deliver education in one visit or separate visits?*” answers varied by provider type and setting. Education was provided at all visits where subjects and care providers met face-to-face and many care providers also provided information and follow up over phone, text, or email. All subjects interviewed reported they reinforced education given if the opportunity. Some care providers only reinforced education they had given themselves while some reported they reinforced education given by other care providers or disciplines.

Where – Patient Education Setting

Surgical oncology patient education is provided in person in both inpatient and outpatient settings. All care providers interviewed provided education in both locations, except for staff nurses who only provided education in their specific clinical location, either inpatient or outpatient. All care providers provided verbal face to face education. Of those, 85% of care providers additionally provided printed education to patients, 46% delivered ongoing education and reinforcement via email or text, and 6% used an alternate media form such as videos for education.

How - Patient Education Documentation and Follow Up

How patient education was documented varied among care provider and location. The health system uses the Meditech 6.15 electronic health record (EHR), but the inpatient and outpatient Meditech are not the same program and the information cannot be seen in the same format. The outpatient setting additionally uses E-Clinical Works (ECW) EHR for clinical documentation, which is not accessible by those who only work in the inpatient setting. Forty percent of subjects did not document any patient education within any electronic health system. For those who do document in the medical record, what they document varied.

All study subjects reported that surgical oncology informed consent procedures were provided by surgical oncology physicians, which routinely occurred in the outpatient setting during a pre-operative visit. Inpatient nurses reported that they occasionally witnessed surgical consent when patients were informed and consented in the hospital. No other discipline besides nursing or providers reported to play a role in consenting patients for surgical oncology procedures.

Assessment of the adequacy of patient education varied among all respondents. Subjects reported using teach back and asking clarifying questions to determine comprehension, but no tools for assessment of knowledge were used by any discipline in any location. Responses to the questions, *How do you reassess for continued educational need? When is this done?* included “I don’t really,” “during every interaction,” and “I know if they call me for questions.” Nurses generally responded that they reassessed educational needs during each interaction and follow up education was done based on

patient or family questions. No respondent had a formalized structure or timeline for assessing the adequacy of patient comprehension or learning.

To the question *How do patients follow up if they have questions after education is delivered? Who do they contact? How is this communicated?* all interview subjects reported that patients were instructed to call their provider office with questions or concerns when not an inpatient. Contact information for provider office was given at each outpatient visit, and at hospital discharge. Some providers also responded that patients were given their cell phone numbers to call after business hours. Oncology navigators also gave patients a cell phone number to call “anytime.” Navigators reported that they could often answer patient questions but also worked as a liaison between providers, social workers, nurses, dieticians, other members of the healthcare team and patients to make sure needs were met. During hospitalization, nurses were available to answer patient questions anytime, day or night.

Case Study Responses

The final question of the guided interview was a case study question to identify consistency of subject perception regarding the process of surgical oncology patient education. .

54-year-old male with 3-month history of nausea, vomiting, weight loss, abdominal pain and jaundice who has received a diagnosis of pancreatic cancer following work up from primary care provider after presentation with increased abdominal pain and jaundice.

Subjects seemed to have similar ideas across disciplines that the patient would receive initial education in the outpatient surgical oncology office, if not initially hospitalized. Some subjects went into greater detail stating that the patient may or may not receive chemotherapy or radiation prior to surgical intervention and, if deemed appropriate, the patient would receive education related to those specific interventions. Following pre-operative education in the outpatient setting by providers and nurses, education is continued in the inpatient setting by inpatient nursing staff and providers. Thirty-three percent of respondents stated this case study patient would likely benefit from care navigation services. Each discipline responding focused on how their specific role would assist a patient in this situation and that early education and intervention were best for successful outcomes.

Themes

Several common themes emerged from the analysis of data. These themes included a focus on the use of electronic health records, the overall nature of the health system, and the need for early intervention.

Electronic Health Record

Almost every subject discussed frustration with multiple EMR systems across the health system. The electronic health records used across the system that intersects with surgical oncology patient documentation include Meditech 6.15 in the inpatient setting, Meditech Web Ambulatory in some outpatient settings, ECW in multiple outpatient

settings across the system, Intellidose and Aria. Forty-six percent of respondents were unable to view patient records in more than one system and 46% did not document any education given in the EMR.

System Connectedness

Although all part of the same health system, many of the subjects did not feel like the separate physical locations or departments were connected. No specific questions were asked during the interview related to system connectedness, but the theme was strong among subject responses. “We are siloed, inpatient, outpatient, medical oncology, radiation oncology, surgical oncology, no one knows what is going on across the campus and we don’t do a wonderful job communicating.” “Breaking down silos” and “systemness” are common terms used by agency leadership across the rapidly growing system and were specifically echoed by seven subjects. Answers to the interview questions, *What formats do you use to deliver education?* and *Where do you get your education material?* illustrate the lack of continuity across both the physical locations in which care is provided and among individuals providing education. Three separate inpatient nurses and two oncology navigators highlighted significant differences in the source of information given to patients, with some inpatient nurses using Exit Care, a patient education library, housed within the Meditech 6.15 system.

Although all subjects reported they reinforced information already given, some only reinforced their own previously provided information while others reinforced education provided by others. Without being able to see what education had been given

to patients, care providers were left to guess on what education needed to be given and or reinforced.

Early Intervention

Oncology navigators, social workers, and dieticians all spoke to their desire to meet with patients sooner in their care journey to provide education and support. No standardization or automatic referral system is in place for these services. Referral is most often done by a provider after the patient has been dealing with ongoing asks for help with lodging, payment of treatment, has excessive weight loss, or begins to miss appointments. These important team members believe if they could help meet needs sooner and develop relationships, many patients would be more satisfied and successful in their treatment plan. During the interviews, many of the participants shared they believed there was opportunity to improve current process and improve outcomes.

CHAPTER FIVE – DISCUSSION

Discussion

The benefit of this qualitative assessment was the systematic collection of information related to surgical oncology patient education. The professional project provided improved understanding of the structure and process of surgical oncology patient education within a complex health system, the role of each individual stakeholder, and identification of system issues and opportunities for continued process improvement.

Weaknesses of the project included coordination of interviews, analysis of qualitative data, and application of information. After themes began to emerge in the data, it was becoming apparent that additional or edited questions may have yielded additional information. Although rich data was collected from participants, additional insight may have been elicited by including medical assistants, certified nursing assistants, or physical therapists directly involved in surgical oncology patient care or other professionals who interact with surgical oncology patients such as medical oncologists, chemotherapy navigators, and chemotherapy infusion staff. Additional questions that may have been beneficial to the project related to the multiple EHR systems, how and when patients were connected with an oncology navigator, steps surrounding consultation for dietitians or social workers, and perceived surgical oncology education issues from each key stakeholder. Additional key stakeholders including medical oncology coordinators and primary care patient navigators may have also illuminated further opportunity for improvement.

Oncology navigators stated they were occasionally present during the pre-op office visit when patients were consented for surgery and one added a desire to be present during the consenting procedure to facilitate better communication and allow the navigators to assess if the patient needed additional resources or education before surgery.

Strengths

One strength identified during this project was a realization that despite the fact that inpatient and outpatient nursing held perceptions that patients are not receiving adequate education, assessment findings revealed in fact, patients are receiving appropriate education throughout their healthcare journey. Retention of information provided, however, was not being assessed and documentation of education given was not standardized. One significant comment summed up the root cause of the patient's inability to retain important health information. "We have to meet basic needs of patients before they can even begin to comprehend what is going to happen to them or what did happen to them." This subject went on to discuss how patients who have recently received a diagnosis of cancer are often struggling with issues such as finances, where to live during treatment, and coordinating affairs in anticipation of potential loss of life or inability to care for themselves or their families. Some of these patients may have lower general and/or health literacy and may have had pre-existing health or social economic issues that are dramatically compounded by a diagnosis of cancer and pending surgical intervention. Until basic physiological human needs are met patients will not be able to

actively participate in learning and understanding. Maslow's Hierarchy of Needs Theory outlines layers of needs supporting a person's desire to fulfill their individual potential. To meet this potential, basic physiologic needs are prioritized and fulfilled in order to achieve higher needs. Once basic needs such as sufficient food and shelter are met, needs in the second layer, safety issues such as financial safety and health care protection, become relevant (Maslow, 1943). The third layer of need includes feelings of belonging, such as the need to be part of a family, community, or group. The fourth layer includes needs related to self-esteem, self-worth, and status. If all these lower-level needs are partially or fully satisfied, people will then strive for self-actualization. Self-actualization is defined as a desire for personal self-fulfillment, which may include job success, creativity or other personal goal attainment (Van Lenthe, Jansen, & Kamphius, 2015).

Patient education may fall under the second layer of Maslow's Hierarchy, safety, but for those existing in low literacy, understanding and retaining education may be difficult to achieve compared to more basic needs. Early intervention by oncology navigators or oncology social workers may assist patients to move through the hierarchy of needs and assist in the receipt and retention of health education. Additionally, providing nutrition education earlier may help improve outcomes by helping meet one of the most basic need of food. The structure and locations which care is provided may pose difficulties in getting patients coordinated with the right care team members to patients at the right time. Standardizing this process may be beneficial.

Comparing Outcomes to Literature

Patients who feel poorly informed tend to be dissatisfied with their care and experience reduced psychological wellbeing (Spalding, Poland, & Gregory, 2013). The current process for surgical oncology patient education at the agency does not have a standard way to assess patients' understanding of information given or emotional preparation of patients prior to a surgical oncology intervention. A standardized discharge assessment of patient education comprehension does not exist. A meta-analysis of 116 studies on information for patients with cancer (Devine & Westlake, 1995), and a review of randomized controlled trials with patients with cancer (McPherson, Higginson, & Hearn, 2001), demonstrated the use of written handouts increases patients' knowledge compared to verbal information alone, yet most of the surgical oncology patient education given throughout the system is done through verbal communication. Pre-operative education provides patients with rationale and the means to engage for planned treatments. The necessary information to enable decision making, self-determination and a sense of control of their recovery are vital outcomes associated with patient education. This knowledge and self-engagement support patients in taking an active role in recovery as opposed to a passive receiver of care and improves overall satisfaction and trust of healthcare team (Spalding et al., 2013). Patient satisfaction and reduction of readmission and improved health outcomes are important metrics for healthcare organizations and

reduce overall healthcare costs. These metrics should guide care and place importance on making sure patient educational needs are met.

If 40-80% of medical information presented by healthcare providers is forgotten (Kessels, 2003), reinforcement of information is very important. Not all care providers interviewed reported they had an opportunity to assess the need for reinforcement and others only reinforced information given by others.

Differences Between Observed and Expected Project Outcomes

Initial phases of this project were based on anecdotal perceptions of inpatient nurses that patients were not adequately prepared for their surgical oncology procedure and post-operative recovery. It was not until the project began that it was also discovered that outpatient nurses had the opposite perception that patients and families were not adequately educated on issues following discharge such as incision and wound care, home drain care, and when to call their surgeon. The mutual frustration with what was perceived to under-educated patients by both inpatient and outpatient nurses and the fact that both nursing areas felt as though they were providing patients with adequate education in their respective care area was enlightening. Although most subject responses and themes such as the EHR, and lack of standardization or “systemness” were as expected, some interviews drew unanticipated statements. The association of Maslow’s Hierarchy of needs and patient’s ability to understand information was not expected and brought tremendous insight surrounding the perceptions of nursing staff. Another unexpected comment was by a provider who reported to often chose not to go into detail

regarding issues surrounding recovery because “it scares patients too much, and emotional patients have a harder time.” Additionally, the theme of earlier intervention of ancillary services such as nutrition, social work, and care navigation was unexpected.

Review of Financial Cost

This project incurred no cost except that of time of the study participants and student. Future project activities as a result of assessment findings have the potential to incur costs related to resources, educational material, and time and effort for involved individuals and departments.

Suggestions to Help Improve Future Projects

Future projects in other systems to assess how structure and process affect surgical oncology education may benefit from additional data collection to allow for improvement of study questions to enhance the depth of collected data.

Limitations

This project was limited by subject participation and the focus on one health system, leading to a lack of generalizability of findings. Due to time, scheduling conflicts and personal and professional responsibilities, several key stakeholders of the surgical oncology team were not interviewed, additional subjects would have further enriched data.

Because of the complexity of the health system and the rural nature of its settings, many of the key players take care of a variety of patient populations including those not associated with surgical oncology. Because of this diversity, certain care providers including nurses, dietitians, and social workers may only rarely see patients with certain diagnosis or procedure. This requires care providers to be knowledgeable in a wide variety of conditions with little repetition and increases the potential of important information being forgotten. Certain educational formats used from proprietary companies may pose bias.

The health system has been slow to adapt to the idea of “systemness” and to standardize practices across clinical settings.

This project met its intended aim and was able to assess current structure and process of surgical oncology education across the health system. Although additional questions or study participants may have resulted in additional questions being asked of study participants to further explore current practice, ample data was collected to confirm that the lack of standardization and “systemness” of surgical oncology education provides future opportunities for improvement in structure and process.

Suggestions for Future Studies or Performance Improvement Projects

1. Suggestions for future work in the area would include the use of additional qualitative data collection from other key stakeholders including patients and further investigation into current practice standards related to patient education.

2. A quality improvement project to establish standards for referral to oncology navigators, oncology social workers and oncology dieticians for all surgical oncology patients could also yield potential benefit to outcomes. This project could include post-surgical outcome data to measure if referral to these services could yield improvement in surgical outcomes, patient satisfaction and financial outcomes.
3. Development of an assessment tool to assess patients understanding of teaching.
4. Joint educational opportunities, such as seminars, web conferences or articles for inpatient nurses, outpatient nurses, nurse navigators, and nurse case managers to, help standardize education delivered to patients.
5. Exploration of alternate avenues to provide education such as videos.
6. Development of a task force to standardize content, delivery cross throughout the system and strengthen the structure, standardize process and improve outcomes.
7. Promotion of *myHealth* patient portal for patients to access educational materials provided during office visits, and hospital discharge. The *myHealth* application is part of the Meditech patient portal and can be accessed by patients to view discharge instructions, lab values, and reports. There is ongoing work within the health system by the patient advisory committee and HIT departments to increase the use of the *myHealth* application by patients. Increased use of this application would help standardize format and allow

patients an opportunity to actively participate in finding answers to questions, that had already been provided.

CHAPTER SIX – CONCLUSION

Conclusion

Patent education is essential to support good health outcomes, recovery from surgery and improves satisfaction wellbeing. To achieve these outcomes surgical oncology patient education must be delivered in a way that meets the patient's needs, is measurable and repeatable.

The Clinical Nurse Leader (CNL) is a master's educated nurse who practices across care settings and assumes accountability for patient-centered outcomes through the assimilation and application of evidence-based information to design, implement and evaluate patient care processes and models of delivery. This project was completed to fulfill requirements of a CNL program and to meet clinical expectations of the CNL role including risk anticipation for individual cohorts of patients, collection, interpretation, and evaluation of data within a microsystem, leadership and collaboration with other health professionals, stewardship of human, environmental and material resources, and advocacy for patients (American Association of Colleges of Nursing, 2013). CNLs are prepared to address disparities in care and address barriers to quality health outcomes through analysis of information and application of science and theory. Findings from this project show many opportunities to improve the delivery of education to surgical oncology patients within one health system including improved communication and collaboration across the continuum of care to address patient-specific education needs

and information sharing such as optimization of technology, early intervention by ancillary care providers and standardization of processes and education media.

An assessment of structure and process of surgical oncology patient education provided a context for exploration of interventions to improve outcomes for surgical oncology patients. One unintended outcome of the project was improved collaboration and professional relationship building amongst care providers within the microsystem. Patient care leaders within the microsystem, including the graduate student, agreed that further work was needed to improve processes that support successful patient outcomes and at the time this paper was finalized, ongoing work related to process improvement and designing interventions to meet specific patient needs within the health system was underway.

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APPENDICES

APPENDIX A

SUBJECT CONSENT FORM FOR PARTICIPATION IN HUMAN RESEARCH

SUBJECT CONSENT FORM FOR PARTICIPATION IN HUMAN RESEARCH

Study Title: Assessment of Organizational Structure and Process on Surgical Oncology Patient Education.

What is this about? You are being asked to participate in a clinical improvement project to assess how current structure and process effect surgical oncology patient education within the Kalispell Regional Healthcare (KRH) system.

Who is doing this, and why? I am Cody Bartholomew, a graduate student at Montana State University and RN Clinical Manager of the Med/Surg Oncology unit at KRH. I have seen a variety of surgical oncology patients with varying understanding of their surgical procedures, post-operative course and recovery expectations. For my graduate school project at the Montana State University, I have decided to assess (through a survey) how our current structure and process for patient education across our complex health system effects the education of surgical oncology patients.

Why were you chosen? You were chosen to participate in this clinical improvement project because you are directly involved in the care of surgical oncology patients within the KRH health system.

Do you have to do this? Your participation in this survey is voluntary. You may refuse to take part in the research or exit the survey at any time without penalty. You are free to decline to answer any particular question you do not wish to answer for any reason. Being a part or not being a part of the project will not affect your employment in anyway.

What to expect? You will be asked to answer questions regarding the current structure and process of surgical oncology patient education. Please answer all questions honestly.

Are there risks? The possible risks or discomforts of the study are minimal. You may feel a little uncomfortable answering survey questions. There is a small risk of loss of confidentiality. We will do our best to keep your information confidential. To help protect your confidentiality, the survey will not include personal information such as name, employee number, social security number, etc. Your answers to the survey will kept in a locked file and then destroyed within 3 years. Only the principal investigator will have access to the survey information, it will not be shared anyone else.

Are there any costs to me for participating in this study? Other than your time, there are no costs to you for participating in this study.

Are there benefits? You will receive no direct benefits from participating in this research study. However, if you choose to participate in this project you will assist in the assessment of current practice with current best practices regarding patient education.

If you agree to be a part of this study, please fill out the consent form on the next page.

APPENDIX B

STUDY INTERVIEW GUIDE

Study Interview Guide

Job Title _____ ie: MD, NP RN, LCSW

Who:

1. Do you provide education to surgical oncology patients?
2. What is your level of education?
3. What specific training have you had related to surgical oncology?
4. Do you provide education to any professionals regarding surgical oncology?
5. How long have you been in your role?

What:

1. What type of education do you give, i.e. pre-operative, post-operative, nutrition, meds, diet, discharge instructions, community resources etc.?
2. What types of surgical oncology patients do you educate? Specific diagnosis?
3. What formats do you use to deliver education, i.e. verbal, written, electronic, etc.?
4. Where do you get patient education material?
 - a. How do you validate the material you use?

When:

1. When do you provide education to patients?
2. How much time do you spend providing education?
3. Do you deliver education in one visit or in separate visits?
4. Do you provide reinforcement of education already given?

Where:

1. In what setting(s) to you provide surgical oncology patient education?
2. Do you provide education face to face, over the phone, through electronic communication?
3. Do you document in a medical record that education was given? Where do you document?

How:

1. How are patients consented for surgical oncology procedures?
2. How do you assess if a patient has received adequate education related to a surgical oncology procedure?
3. How do you reassess for continued educational need? When is this done?
4. How do patients follow up if they have questions after education is delivered? Who do they contact? How is this communicated?

1. How do patients follow up if they have questions after education is delivered? Who do they contact? How is this communicated?
2. Do you have a sense of how many surgical oncology patients are readmitted for failure to recognize symptoms that needed medical attention?
3. In the following scenario list the places along the continuum of care where a patient receives education? Who provides this education?

54 year old male with 3 month history of nausea, vomiting, weight loss and abdominal pain, who receives diagnosis of pancreatic cancer after work up from primary care provider following presentation for ongoing abdominal pain and new onset jaundice.

APPENDIX C

INSTITUTIONAL REVIEW BOARD



INSTITUTIONAL REVIEW BOARD
For the Protection of Human Subjects
FWA 00000165

960 Technology Blvd. Room 127
 c/o Microbiology & Immunology
 Montana State University
 Bozeman, MT 59718
 Telephone: 406-994-6783
 FAX: 406-994-4303
 E-mail: cherylj@montana.edu

Chair: Mark Quinn
 406-994-4707
 mquinn@montana.edu
Administrator:
 Cheryl Johnson
 406-994-4706
 cherylj@montana.edu

MEMORANDUM

TO: Cody Bartholomew and Susan Raph
FROM: Mark Quinn *Mark Quinn*
 Chair, Institutional Review Board for the Protection of Human Subjects
DATE: March 6, 2018
RE: "Assessment of Organizational Structure and Process on Surgical Oncology Patient Education" [CB030618-EX]

The above research, described in your submission of March 6, 2018, is exempt from the requirement of review by the Institutional Review Board in accordance with the Code of Federal regulations, Part 46, section 101. The specific paragraph which applies to your research is:

- ☐ (b) (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
- ☒ (b) (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.
- ☐ (b) (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: (i) the human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
- ☐ (b) (4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available, or if the information is recorded by the investigator in such a manner that the subjects cannot be identified, directly or through identifiers linked to the subjects.
- ☐ (b) (5) Research and demonstration projects, which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.
- ☐ (b) (6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed, or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the FDA, or approved by the EPA, or the Food Safety and Inspection Service of the USDA.

Although review by the Institutional Review Board is not required for the above research, the Committee will be glad to review it. If you wish a review and committee approval, please submit 3 copies of the usual application form and it will be processed by expedited review.

MONTANA STATE UNIVERSITY
Institutional Review Board Application for Review
(revised 06/01/15)

Exempt

THIS AREA IS FOR INSTITUTIONAL REVIEW BOARD USE ONLY. DO NOT WRITE IN THIS AREA

Application Number:

Approval Date: *3/6/18*

Disapproved:

IRB Chair's Signature: *Mark J. J...*

Date: 2/1/18

I. Investigators and Associates (list all investigators involved; application will be filed under name of first person listed)

NAME: Cody Bartholomew

TITLE: RN

DEPT: Nursing

PHONE #: 406-261-1650

COMPLETE ADDRESS: Montana State University College of Nursing, Kalispell Campus 210 Sunny View Lane Suite 5, Kalispell MT 59901.

E-MAIL ADDRESS: cody.bartholomew1@student.montana.edu

DATE TRAINING COMPLETED: 3/16/16 [Required training: CITI Training; see website for link]

SIGNATURE (PI or ADVISOR):

Susan Wallace Raph, DNP, RN, NEA, BC

NAME: Susan Raph, DNP, RN, NEA, BC

TITLE: Associate Clinical Professor and Interim Associate Dean for Graduate Programs

DEPT: College of Nursing

PHONE #: 406-771-4441

COMPLETE ADDRESS: 400 15th Ave South, Suite 106 Great Falls, MT 59405

E-MAIL ADDRESS: sraph@montana.edu

DATE TRAINING COMPLETED: 03/06/16 [Required training: CITI Training; see website for link]

(repeat for additional investigators if needed; or delete extra if not necessary)

Do you as PI, any family member or any of the involved researchers or their family members have consulting agreements, management responsibilities or substantial equity (greater than \$10,000 in value or greater than 5% total equity) in the sponsor, subcontractor or in the technology, or serve on the Board of the Sponsor? YES x NO

If you answered Yes, you will need to contact Kellie Peterson, Assistant Legal Counsel-JD at 406-994-3480.

II. Title of Proposal: Assessment of Organizational Structure and Process on Surgical Oncology Patient Education.

III. Beginning Date for Use of Human Subjects: upon approval

IV. Type of Grant and/or Project (if applicable) n/a

Research Grant:

Contract:

Training Grant:

Classroom Experiments/Projects:

Thesis Project:

Other (Specify):

*- ok as exempt
- Interviews about surgical patient procedures
- Little/no risk
- Approved by hospital
- No concerns*

V. Name of Funding Agency to which Proposal is Being Submitted (if applicable): n/a

*MQ
3/6/18*

VIII. Checklist to be completed by Investigator(s)

- A. Will any group, agency, or organization be involved? **Yes** or **No**
(If yes, please confirm that appropriate permissions have been obtained.) **Kallispell Regional Healthcare IRB approval attached.**
- B. Will materials with potential radiation risk be used (e.g. x-rays, radioisotopes)? **Yes** or **No** **n/a**
1. Status of annual review by MSU Radiation Sources Committee (RSC). **Pending** or **Approved**
(If approved, attach one copy of approval notice.) **n/a**
 2. Title of application submitted to MSU RSC (if different).
- C. Will human blood be utilized in your proposal? **Yes** or **No**
(If yes, please answer the following)
1. Will blood be drawn? **Yes** or **No**
(If yes, who will draw the blood and how is the individual qualified to draw blood?
What procedure will be utilized?)
 2. Will the blood be tested for HIV? **Yes** or **No** **n/a**
 3. What disposition will be made of unused blood?
 4. Has the MSU Occupational Health Officer been contacted? **Yes** or **No**
- D. Will non-investigational drugs or other substances be used for purposes of the research? **Yes** or **No**
- E. Will any investigational new drug or other investigational substance be used? **Yes** or **No**
- F. Will an investigational device be used? **Yes** or **No**
(If yes, provide name, source description of purpose, how used, and status with the U.S. Food and Drug Administration FDA). Include a statement as to whether or not device poses a significant risk. Attach any relevant material.)
- G. Will academic records be used? **Yes** or **No**
- H. Will this research involve the use of:
Medical, psychiatric and/or psychological records **Yes** or **No**
Health insurance records **Yes** or **No**
Any other records containing information regarding personal health and illness **Yes** or **No**
- If you answered "Yes" to any of the items under "H.", you must complete the **HIPAA worksheet**.
- I. Will audio-visual or tape recordings or photographs be made? **Yes** or **No**
- J. Will written consent form(s) be used? (**Yes** or **No**. If no, explain.) (Please use accepted format from our website. Be sure to indicate that participation is voluntary. Provide a stand-alone copy; do not include the form here.)



Institutional Review Board
310 Sunnyview Lane | Kalispell, MT 59901 | (406) 758-7495
FAX: (406) 758-7495 | IRB000004631

February 01, 2018

Cody Bartholomew, RN, CDE
310 Sunnyview Lane
Kalispell, MT 59901

Study Title: *Assessment of Organizational Structure and Process on Surgical Oncology Patient Education*

IRB Protocol Number: 2018-003

Dear Mrs. Bartholomew,

This letter is to officially notify you that after an expedited review the Kalispell Regional Medical Center (KRMC) Institutional Review Board (IRB) have determined that this study meets criteria 1A.W 45 CFR 46.110 of minimal risk to participants and has given its approval for the above referenced study. The expiration date for this approval is February 1, 2019. The approved documents are:

- Subject Consent Form For Participation in Human Research
- Study Protocol
- Study Interview Guide

All protocol modifications and/or deviations must be IRB approved prior to implementation.

If you wish for the study to be re-approved annually¹, please complete the continuing review form on IRBManager, summarizing your use of the protocol during the year no later than 30 days prior to your expiration date; otherwise please submit a Study Closure form prior to the expiration date. If there are any serious adverse events or outcomes related to this study, please notify the IRB immediately.

We look forward to working with you and would like you to present your findings to the Board upon conclusion. If there are any further questions, please feel free to contact me at (406) 758-7495.

Sincerely,

Jeffrey Eshleman, MD
IRB Member
(406) 758-7495

¹ Federal Regulations require that all studies be reviewed at least annually. Please take necessary measures to comply with this federal regulation. If there are circumstances that prevent you from submitting the Continuing Review form, please contact the IRB office immediately.

1

AOSPSCOPE**Assessment of Organizational Structure and Process on Surgical Oncology Patient Education**

Cody Bartholomew RN, CDE

MSN Clinical Leader Student

Montana State University College of Nursing

Project Summary

The purpose of this clinical improvement project is to assess and analyze the organizational structure and processes on surgical oncology patient education.

Education is an essential part of nursing care delivery and enables patients to be active participants in their plans of care. To improve health, comfort and life of surgical oncology patients, education must be coordinated and comprehensive. Assessment of the current structure and process for surgical oncology education will identify where opportunities for improvement can be made, ultimately leading to improved quality of care and patient outcomes. Currently surgical oncology patients receive education that is fragmented and asystematic due the complexity of organizational structures within the KRH system.

Quantitative information related to structure and process will be collected by a guided interview tool. Subjects will include KRH employees directly involved in the education of surgical oncology patients including physicians, mid-level providers, inpatient and outpatient nursing staff, case management, social work, clinical coordinators, patient navigators and medical assistants. 20 subjects will be interviewed over the course of two weeks.

Information collected will be assessed based on best practice literature regarding patient education.

2
AOSPSOPE

Title: Assessment of Organizational Structure and Process on Surgical Oncology Patient Education.

Date: January 30, 2018

Investigator: Cody Bartholomew RN, CDE. Montana State University College of Nursing, Kalispell Campus 210 Sunny View Lane Suite 5, Kalispell MT 59901. 406-261-1650

Oversight by Susan J. Wallace Baph, DNP, RN, NEA-BC Campus Director & Associate Clinical Professor Montana State University College of Nursing Great Falls Campus. 400 15th Ave South Suite 106, Great Falls MT, 59405. 406-771-4441.

Research Site: Kalispell Regional Healthcare 310 Sunny View Lane, Kalispell MT 59901

Study Goal: The goal of this clinical improvement project is to assess and analyze the organizational structure and processes on surgical oncology patient education.

Study Design: Quantitative information for assessment of current structure and process will be gathered by conducting guided interviews of Kalispell clinical staffs who are directly involved in education of surgical oncology patients.

- **Inclusion criteria for study:** clinical staff, 18 years or older, employed by KRH system directly involved in education of surgical oncology patients. **Exclusion criteria**
- **Exclusion criteria for study:** less than 18 years old, not employed by KRH, or not involved in surgical oncology patient education.
- **Expected duration of study:** Interviews will be conducted over the course of two weeks.

Methodology: Quantitative data collection using guided interview tool. Subjects will be interviewed in location of their choice on the KRH campus. Information will be collected by PI on interview tool.

Safety Considerations: This study has minimal risk to human subjects. No names will be collected during interview. Data will be secured by PI and will remain aggregate. Perceived risk of subjects may include fear of sharing personal or professional information, retribution for participation or answers provided.

Follow up: Final assessment information will be available to study participants if requested via invitation to final project defense.

Data Management and Statistical Analysis: Data will be secured in locked facility by PI. Analysis of qualitative data will be based on comparison against best practice standards from literature.

Quality Assurance: Data will be collected and analyzed by PI following the theoretical framework of Donabedian's structure, process, outcome quality of care model.

3

AOSPSOPE

Expected Outcomes of Study: This qualitative study is intended to gather information related to how current organizational structure and process effect education of surgical oncology patients. This knowledge will be used for potential quality improvement initiatives or patient education and surgical oncology patient outcomes.

Duration of Project: Guided interviews will be completed over approximately two week time frame.

Problems Anticipated:

1. Short timeline for interview completion. Solution would be to increase recruitment time to up to 4 weeks; this would lead to inability to complete data analysis and presentation in April.
2. Unrestful recruitment of variety of participants could lead to insufficient data collection.

Project Management: Project will be managed by Cody Bartholomew RN, primary investigator with oversight by Susan J. Wallace Raph, DNP, RN, NEA-BC Campus Director & Associate Clinical Professor Montana State University College of Nursing.

Ethics:

Informed Consent: see attached

Budget: There is no or funding or budget for this project

Other Support for the Project: see above

Collaboration with other scientists or research institutions: Project oversight through Montana State University Graduate College of Nursing.

Curriculum Vitae of investigators: See attached

Other research activities of investigator: n/a

Financing and Insurance: n/a

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COURSEWORK REQUIREMENTS REPORT***

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

• **Name:** Cody Bartholomew (ID: 5441533)
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 • **Institution Affiliation:** Montana State University (ID: 1066)
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• **Curriculum Group:** Social and Behavioral Research Investigators/ Faculty
 • **Course Learner Group:** Social & Behavioral Research - Basic/Refresher
 • **Stage:** Stage 1 - Basic Course
 • **Description:** Choose this group to satisfy CITI training requirements for investigators and staff involved primarily in Social/Behavioral Research with human subjects.

• **Report ID:** 10640551
 • **Completion Date:** 03/13/2016
 • **Expiration Date:** 03/13/2019
 • **Minimum Passing:** 80
 • **Reported Score*:** 96

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED
Cultural Competence in Research (ID: 15198)	03/08/16
Belmont Report and CITI Course Introduction (ID: 1127)	03/08/16
Students in Research (ID: 1321)	03/08/16
History and Ethical Principles - SBE (ID: 490)	03/07/16
Defining Research with Human Subjects - SBE (ID: 491)	03/07/16
The Federal Regulations - SBE (ID: 502)	03/09/16
Assessing Risk - SBE (ID: 503)	03/09/16
Informed Consent - SBE (ID: 504)	03/13/16
Privacy and Confidentiality - SBE (ID: 505)	03/13/16
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	03/13/16

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

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